

### REMARKS

Claims 15-30 are pending and stand rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 5,841,366 to Yamamoto et al. ("the Yamamoto reference") in view of United States Patent No. 5,648,905 to Izumi et. al. ("the Izumi reference"). Applicants respectfully submit that this rejection is unsupported by the applied references.

Claim 15 recites:

A method for determining **a future travel-path area** of a first vehicle, the first vehicle equipped with a distance sensor, comprising the steps of:

determining a relative position of at least one second vehicle traveling ahead of the first vehicle, the first vehicle determining the relative position of the at least one second vehicle at predetermined timepoints using the distance sensor;

storing the determined relative position of the at least one second vehicle in a storage device, the determined relative position constituting a course path of the at least one second vehicle traveling ahead;

determining **the future travel-path area** of the first vehicle at least as a function of **the course path of the at least one second** vehicle traveling ahead; and

projecting **the course path of the at least one second vehicle** traveling ahead in direction of a position of the first vehicle.

The Yamamoto reference does not disclose determining **a future travel-path area** of the first vehicle. Instead, the Yamamoto reference discloses determining **only a traveling-path** of the first vehicle based on the travel path of the second vehicle. The "future travel-path area" comprises the entire spatial area in which the first vehicle will probably move. As stated in the Specification:

In this context, the concept "**future travel-path area**" is **distinguished** in what follows **from the concept "future travel-path"** in that the former contains the entire spatial area in which the controlled vehicle will probably move. This means that it also takes into account in each case the width

required by the motor vehicle. (Substitute Specification, p. 2, ll. 18-23). (*emphasis added*).

The Izumi reference likewise fails to disclose determining "a future travel-path area" and projecting the course path of a second vehicle traveling ahead in a direction of a position of the first vehicle.

With respect to the Examiner's assertion that it would have been obvious to a person of ordinary skill in the art at the time the invention was made "to project the future travel path of the second vehicle in the direction of travel of the first vehicle after the course path has been determined since selecting an origin of direction at which the future path is calculated, and moving the course path to another origin of direction requires only routine skill in the art," the Applicants respectfully submit that the Examiner is misconstruing the limitations of Claim 15. Initially, it should be noted that Claim 15 requires "projecting the course path of the at least one second vehicle traveling **ahead in direction of a position** of the first vehicle," which means the course path of the second vehicle is **extrapolated back** in the direction of the first vehicle. (See Substitute Specification, p. 17, l. 14-30). This claim limitation calling for "projecting the course path . . . in direction of a **position**," i.e., extending the course path, is quite different from "project[ing] the future travel path of the second vehicle **in the direction of travel** of the first vehicle . . . , and **moving the course path** to another origin of direction," which is the interpretation given to this limitation by the Examiner. Neither Yamamoto nor Izumi teaches "projecting the course path of the . . . second vehicle traveling ahead in direction of a position of the first vehicle."

Furthermore, in contrast to the Examiner's assertion, there cannot be any logical motivation for incorporating this feature into the methods disclosed in Yamamoto and Izumi, since the traveling-path deduction methods of Yamamoto and Izumi involve principles which are completely different from the claimed method involving the projection of the travel path of the forward vehicle **back toward the trailing vehicle position**.

As acknowledged by the Examiner, Yamamoto merely teaches picking one of several potential paths for the trailing vehicle based on the time-change of the transversal displacement of the forward vehicle with respect to various potential paths. (Col. 5, l. 51 - col. 6, l. 32). Izumi teaches determining a second course K2 of the vehicle M based on the location of the vehicle A ahead of the vehicle M; distance between the two vehicles; an angle defined by a line connecting the two vehicles and a line representing the longitudinal axis of the trailing vehicle M; and a predetermined width to be added to the radius of curvature of the course K2. (Col. 6, l. 23-32). Since the asserted modification of projecting the travel path of the forward vehicle back toward the trailing vehicle position would be completely contrary to the principles of operation of the Yamamoto and Izumi, the obviousness conclusion is unsupported by the applied references. M.P.E.P. § 2143.01.

For the foregoing reasons, the Yamamoto and Izumi references do not render Claim 15 or its dependent Claims 16 - 27 and 29-30 obvious under 35 U.S.C. §103(a). Claim 28 contains features similar to those recited in Claim 15, so the Yamamoto and Izumi references similarly fail to render Claim 28 obvious under 35 U.S.C. §103(a). It is therefore respectfully requested that this rejection be withdrawn.

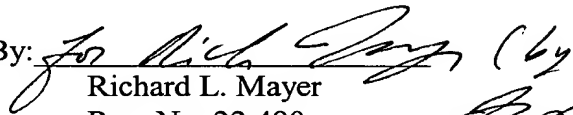

**CONCLUSION**

In light of the foregoing, Applicants respectfully submit that all of the pending claims are in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

Respectfully submitted,

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